

CLAIMS

- 1) A person identification and location procedure by radio frequency tags (RFID) that have an incorporated chip including the following steps:
 - obtaining a fingerprint by a digital device;
 - 5 plotting the digital image of a print onto a predetermined alphanumeric two-dimensional grid or stencil in segments and measurements identified by letters and/or numbers;
 - classifying the print into one of the possible existing groups;
 - subclassifying the print according to the classification to which it belongs;
 - 10 determining the characteristic points of the fingerprint are determined and coded in alphanumeric information;
 - converting the alphanumeric code obtained into barcodes using conventional methods;
 - providing an RFID tag that contains a chip and an antenna hidden between the tag's layers of lamination;
 - 15 printing the barcode resulting from the fingerprint entered onto the RFID tag;
 - providing a permanent card that has a hidden RFID chip and antenna;
 - entering the barcode resulting from the fingerprint onto the permanent card and printing with a hidden RFID chip;
 - 20 registering the unique code of each chip in a software system, and activating the chips and entering additional information; and
 - satellite scanning of the tag that has the hidden RFID tag.
- 2) The person identification and location procedure, according to claim 1, wherein prior to the classification and subclassification steps, steps involving segmenting the image obtained, dividing the image containing several fingerprints into several separate images each containing a fingerprint are added, and each of them is worked individually according to the following steps:

- segmenting each image eliminating the pixels that do not pertain to the print;
- improving the image by eliminating noise;
- analyzing the quality of the print, and obtaining a quality index, if it is
- 5 the right one, the image is processed as follows:
- searching on the core of the print;
- binarizing the image where black pixels represent ridges and white ones
- the valleys;
- calculating the local placement of ridges and valleys;
- 10 calculating the general orientation of the print;
- configuring the grid and inserting its central point in the center of the
- image;
- numbering the grid and lettering the grid and each square is assigned a
- character;
- 15 inserting the grid onto the fingerprint to obtain an image which is
- displayed graphically.
- 3) The person identification and location procedure, according to claim
- 1, including the following steps:
- inputting a person's personal data taken from his documentation;
- 20 obtaining the person's fingerprint by way of an organic safety seal that
- lifts off remains of cells attached to an adhesive material on that organic seal;
- capturing the fingerprint by a digital medium and digitalizing the image
- obtained or the image of the prints obtained by the safety seal;
- processing the digitalized prints and generating the corresponding
- 25 barcode; and
- transmitting the barcode that was obtained plus the person's personal
- data to the country he is traveling to.
- 4) The person identification and location procedure according to claim 1,
- including the following steps:

presenting a passport to the authorities of the country in which the traveler arrives;

taking the traveler's personal data from his documentation and entering it into the system;

5 obtaining the person's fingerprint using an organic safety seal that lifts off cell remains attached to the adhesive material of the organic seal;

capturing the fingerprint by a digital medium, and digitalizing the image that was obtained or the prints obtained using the safety seal ;

10 processing the digitalized prints and generating the corresponding barcode.

5) The person identification and location procedure according to claim 1, wherein the barcode obtained is linked to the rest of the person's information.

15 6) The person identification and location procedure according to claim 1, wherein the step for determining the characteristic points of the fingerprint and coding them into alphanumeric information is done taking into consideration the specific square of the grid the characteristic point is found.

7) The person identification and location procedure according to claim 1, wherein the search the software performs is based only on certain characteristic points of the alphanumeric chain.

20 8) The person identification and location procedure according to claim 1, wherein the search the software does is by scanning only certain squares searching out matching points.

9) The person identification and location procedure according to claim 1, wherein the search the software performs is done by combining certain 25 characteristic points of the alphanumeric chain in specific squares.

10) The person identification and location procedure according to claim 1, including the steps of:

presenting a passport to the authorities of the country the traveler is leaving;

reading the barcodes on the documentation and transmitting the traveler's personal data that was registered when he entered the country to the system;

5 obtaining the person's fingerprint by way of an organic safety seal that lifts off cell remains attached to the adhesive material of this organic seal;

capturing the fingerprint using a digital medium, and digitalizing the image that was obtained or the print image obtained using the safety seal;

processing the digitalized prints and generating the corresponding barcode, if it matches the one registered in the database, it is the same person;

10 deactivating the RFID chips;

wherein the traveler leaving the country is registered in the system, his passport is stamped, and the permanent card is destroyed.

11) The person identification and location procedure, according to claim 1, including the following steps:

15 reporting via the software, according to the location screen or map, on travelers whose visas have expired;

sending a specific signal via radio from its antenna to the RFID tag on the passport and on the permanent card, which responds with a signal or message indicating their status and position;

20 determining the traveler's location and depending on the positions received from both RFID tags, taking the pertinent legal action;

wherein if the traveler is not located, the same tracking process is used to track people who are related to the traveler being sought, according to the information that was previously entered into the system when the traveler entered the country,

25 12) The RFID tag that includes a chip and an antenna that issues and receives signals on a certain frequency as claimed in claim 1, is passive.

- 13) The RFID tag that includes a chip and an antenna that issues and receives signals at a certain frequency as claimed in claim 1, is active and includes an internal battery.
- 14) The RFID tag that includes a chip and an antenna that issues and receives signals at a certain frequency as claimed in claim 1, contains conductive inks that replace copper antennas.
- 15) The RFID tag that includes a chip and an antenna that issues and receives signals at a certain frequency as claimed in claim 1, has just one reader.
- 16) The RFID tag that includes a chip and an antenna that issues and receives signals at a certain frequency as claimed in claim 1, has a reader and writer.
- 17) The RFID tag that includes a chip and an antenna that issues and receives signals at a certain frequency as claimed in claim 1, uses a printed EPC (Electronic Product Code).
- 18) The RFID tag that includes a chip and an antenna that issues and receives signals at a certain frequency as claimed in claim 1, includes an ONS system (Object Naming Service).
- 19) The RFID tag that includes a chip and an antenna that issues and receives signals at a certain frequency as claimed in claim 1, includes sensors.
- 20) The RFID tag that includes a chip and an antenna that issues and receives signals at a certain frequency as claimed in claim 1, includes MEMS (Micro Electro-Mechanic Systems).
- 21) The device as claimed in claim 1, which includes a series of interrelated devices or apparatuses such as a digital image capturing medium, a computer containing software, a database, a laser barcode reader, a printer, an RFID transmitter, a reader that issues signals on a predetermined frequency to the RFID transmitters contained in its range of reach, a computer network, recognition and administration software, a supporting service, and remote information storage.